

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-001674**Date Inspected:** 01-Mar-2008**Project Name:** SAS Superstructure**OSM Arrival Time:****Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:****Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Huang Wen-Pang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

The Caltrans Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Orthotropic Box Girders (OBG).

Bay 7 OBG:

The QA Inspector randomly observed ZPMC Welders Hong Yongli ID Number 044801 and Chen Chuan Zong ID Number 044824, utilizing the FCAW Process with ZPMC WPS WPS-B-T-2132-3 in the 2F (Horizontal Fillet) position with a Hitronic HIT-18-1D Automatic Welding Carriages, to weld various stiffeners to Floor Beam Sub-Assembly FB025-02. The QA Inspector randomly observed ZPMC CWI Hu Wei Qing monitoring weld parameters. The QA Inspector also randomly observed welding parameters and they are as follows: 295 amps, 29.3 volts with a travel speed of 418 millimeters (mm) per minute for Mr. Hong and 298 amps, 30.2 volts with a travel speed of 421 mm per minute for Mr. Chen. Weld parameters appeared to comply with contract requirements. The QA Inspector also randomly observed some additional porosity in WJ 041. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC Welder Hong Shuili ID Number 044815 utilizing the FCAW Process with ZPMC WPS WPS-B-T-2132-3 in the 2F (Horizontal Fillet) position to weld stiffeners to Floor Beam Sub-Assembly FB017-01. The QA Inspector randomly observed ZPMC CWI Hu Wei Qing monitoring weld parameters. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC Welding Personnel utilizing the Carbon Air Arc Gouging Process to

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## WELDING INSPECTION REPORT

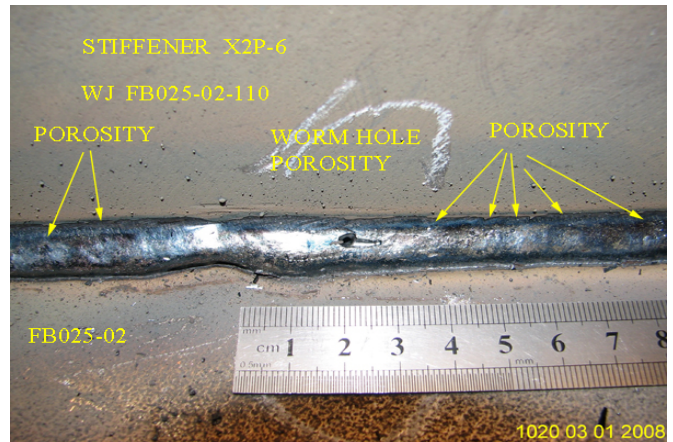
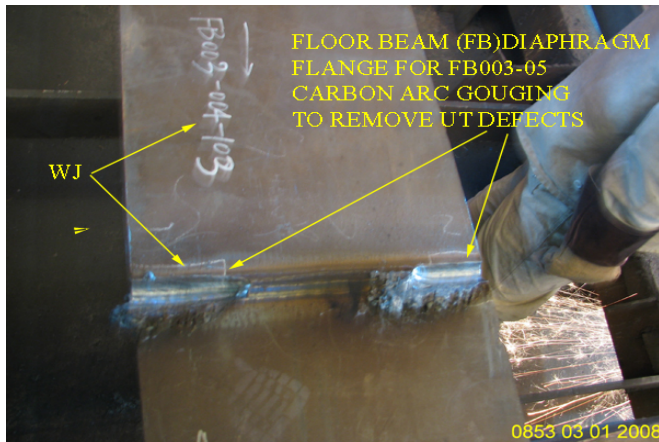
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remove defects from Floor Beam Diaphragm Flanges in WJ's FB003-003-103, FB003-004-103 and FB003-005-103 per ZPMC Welding Repair Procedures B-WR067, B-WR068 and B-WR069 respectively. The attached photograph provides additional detail.

The QA Inspector randomly observed that a ZPMC Helper had ground approximately 3 mm into the base metal of stiffener piece mark X82K at Y=4500, 830 mm from another 3 mm excavation into the base metal of the web on stiffener piece mark X82K. This area was at Y=3670 and was excavated on 02-29-08. The QA Inspector informed Mr. Dave Larue of ABF, and Mr. LaRue informed the QA Inspector that he would generate another Incident Report. Mr. LaRue also informed ZPMC CWI Hu Wei Qing that a Critical Weld Repair needed to be generated prior to the removal of any base metal.

The QA Inspector performed visual inspection of WJ'S 004 and 005 on Deck Plate DP017-001. Indications were marked on the Deck Plate in yellow paint stick with the type of indication and Y location. The same information was recorded on a separate spreadsheet.



### Summary of Conversations:

As noted in the above body of this report.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Franco,Charlie	Quality Assurance Inspector
<b>Reviewed By:</b>	Hager,Craig	QA Reviewer

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